

reduced mass to be sealed is required to consistently obtain the type of seal 30a desired. (note, pre-punching rather than pre-compression could also be used with HFFS or VFFS machines.)

5

The foregoing is considered as illustrative only of the principles of the invention. Furthermore, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described.

10

What is claimed is:

15

20

25

30

1. A reclosable bag for filling with at least one food product, said reclosable bag comprising: at least one sheet of web material including at least two areas of structural weakness, having at least one fold structure located between and defined by said two areas of structural weakness, and an opening located generally opposite said fold structure; a reclosable fastener structure including a skirt structure of skirt web material extending therefrom; said skirt structure including a distal margin; said distal margin being coupled to said web material at, at least one location between said areas of structural weakness and said opening; said reclosable fastener structure extending past said areas of structural weakness and into said fold structure; said reclosable bag capable of being filled with at least one food product through said opening.

2. The reclosable bag of claim 1 wherein the skirt web material is integral to the reclosable fastener structure.
- 5 3. The reclosable bag of claim 1 wherein the skirt web material is coupled to the reclosable fastener structure.
- 10 4. The reclosable bag of claim 1 wherein the integral skirt includes an outside surface and an inside surface; the distal margin being located on the outside surface; the inside surface including predetermined area having a releasable adhesive material thereon; whereby a peelable seal may be
15 formed.
5. The reclosable bag of claim 4 wherein the peelable seal, when formed, is hermetic.
- 20 6. The reclosable bag of claim 1 wherein said web material of said reclosable bag is substantially comprised of a sheet of a parent film material having predetermined dimensions.
- 25 7. The parent film material of claim 6 wherein the areas of structural weakness are integral to said parent film.
- 30 8. The reclosable bag of claim 1 wherein said areas of structural weakness extend linearly across a predetermined dimension of said sheet of web

material.

5

9. The reclosable bag of claim 8 wherein the predetermined dimension is width.

10. The reclosable bag of claim 8 wherein the predetermined dimension is length.

10

11. The reclosable bag of claim 1 wherein said areas of structural weakness extend nonlinearly across a predetermined dimension of said sheet of said web material.

15

12. The reclosable bag of claim 11 wherein the predetermined dimension is width.

13. The reclosable bag of claim 11 wherein the predetermined dimension is length.

20

14. The reclosable bag of claim 1 wherein said areas of structural weakness extend across a predetermined dimension of said sheet of web material in a predetermined pattern.

25

15. The reclosable bag of claim 1 wherein said areas of structural weakness comprise perforations.

30

16. The reclosable bag of claim 1 wherein said areas of structural weakness comprise scoring.

17. The reclosable bag of claim 1 wherein said

areas of structural weakness comprise microperforations.

5 18. The reclosable bag of claim 1 wherein said sheet of web material is comprised of a multiple laminate film.

10 19. The reclosable bag of claim 18 wherein said multiple laminate film includes at least one layer of material comprising a tear path.

20. The reclosable bag of claim 19 wherein said tear path is hermetic.

15 21. A reclosable bag for filling with at least one food product, said reclosable bag comprising: at least one sheet of web material including a first area of structural weakness and a second area of structural weakness; said sheet of web material
20 including at least one fold structure located between and defined by said first and second areas of structural weakness, and a fill opening; said sheet of web material including a first panel coupled to said fold structure adjacent said first
25 area of structural weakness and a second panel coupled to said fold structure adjacent said second area of structural weakness; a reclosable fastener structure including a male track structure and a female track structure; said male
30 track structure including a first fin structure of web material extending therefrom and said female track structure including a second fin structure

of web material extending therefrom; each said fin structure including a predetermined coupling portion; said coupling portion of said first fin structure being coupled to said first panel and said coupling portion of said second fin structure being coupled to said second panel; said reclosable fastener structure extending past said areas of structural weakness and into said fold structure; said areas of structural weakness being located below said reclosable fastener structure; said reclosable bag capable of being filled with at least one food product through said fill opening.

22. The reclosable bag of claim 21 wherein said areas of structural weakness are hermetic.

23. The reclosable bag of claim 21 wherein said fill opening is located generally opposite said fold structure.

24. The reclosable bag of claim 21 wherein said first fin structure is larger than said second fin structure.

25. The reclosable bag of claim 21 wherein said first fin structure and said second fin structure each include a distal margin; said distal margins facing each other and at least one distal margin being coated with a releasable adhesive material.

26. The reclosable bag of claim 25 wherein said

distal margins are releasably coupled to each other by said releasable adhesive material.

5 27. The reclosable bag of claim 25 wherein at least one said distal margin is coated with said releasable adhesive material and said distal margin is coupled to a predetermined portion of said web material.

10 28. The reclosable bag of claim 21 wherein said first fin structure and said second fin structure are integral to each other and include a predetermined area of structural weakness located between said coupling portion of said first fin
15 structure and said coupling portion of said second fin structure.

20 29. A reclosable bag for filling with at least one food product, said reclosable bag comprising: at least one sheet of web material, at least one tear tape structure, at least one fold structure, and an opening located generally opposite said fold structure; a reclosable fastener structure including at least one integral skirt structure of
25 skirt web material extending therefrom; said integral skirt structure including at least one distal margin; said distal margin being coupled to said web material at, at least one location between said tear tape structure and said opening;
30 said reclosable fastener structure extending past said tear tape structure and into said fold structure; said reclosable bag capable of being

filled with at least one food product.

5 30. A reclosable bag for filling with at least one food product, said reclosable bag comprising: at least one sheet of web material having at least one fold structure presenting at least two sidewall structures having inside surfaces, and an opening located generally opposite said fold structure; a reclosable fastener structure including an integral skirt structure comprising a web material extending therefrom and including opposed distal margin structures; said web material of said integral skirt structure being sealed to said inside surfaces at a plurality of
10 predetermined sealing areas; a barrier web material extending between and coupled to said distal margin structures.

20 31. The reclosable bag of claim 30 wherein said barrier web material extends between and is coupled to said sidewall structures.

25 32. The reclosable bag of claim 31 wherein said barrier web material is coupled to at least one of said sidewall structures by at least one peelable seal.

30 33. The reclosable bag of claim 30 wherein said predetermined sealing areas are located on said respective sidewall structures.

34. The reclosable bag of claim 30 wherein said

barrier web material is coupled to said predetermined sealing areas by at least one peelable seal.

5 35. The reclosable bag of claim 30 wherein said barrier web material includes at least one area of structural weakness extending generally parallel to said predetermined sealing areas.

10 36. The reclosable bag of claim 31 wherein said barrier web material includes at least one area of structural weakness extending generally parallel to said predetermined sealing areas.

15 37. A reclosable bag for filling with at least one food product, said reclosable bag comprising: at least one sheet of web material including at least one predetermined tear area, at least one fold structure, and an opening located generally
20 opposite said fold structure; a reclosable fastener structure including at least one integral skirt structure of skirt web material extending therefrom; said integral skirt structure including at least one distal margin; said distal margin
25 being coupled to said web material at, at least one location between said tear area and said opening; said reclosable fastener structure extending past said tear area and into said fold structure; said reclosable bag capable of being
30 filled with at least one food product.

38. The reclosable bag of claim 37 further

including at least one header material located in a predetermined area of said fold structure.

5 39. The reclosable bag of claim 38 wherein said header material includes at least one edge structure adjacent said tear area.

10 40. The reclosable bag of claim 37 further including at least one tear tape structure coupled to said web material and adjacent to said tear area.

15 41. A reclosable bag for filling with at least one food product, said reclosable bag comprising: at least one sheet of web material having a propensity to tear along at last two predetermined tear areas; having at least one fold structure located between and defined by said two tear areas, and an opening located generally opposite said fold structure; a reclosable fastener structure including a skirt structure of skirt web material extending therefrom; said skirt structure including a distal margin; said distal margin being coupled to said web material at, at least one location between said two tear areas and said opening; said reclosable fastener structure extending past said two tear areas and into said fold structure; said reclosable bag capable of
25 being filled with at least one food product
30 through said opening.

42. The reclosable bag of claim 41 wherein the skirt web material is integral to the reclosable fastener structure.

5 43. The reclosable bag of claim 41 wherein the skirt web material is coupled to the reclosable fastener structure.

10 44. The reclosable bag of claim 41 wherein the integral skirt includes an outside surface and an inside surface; the distal margin being located on the outside surface; the inside surface including predetermined area having a releasable adhesive material thereon; whereby a peelable seal may be
15 formed.

45. The reclosable bag of claim 41 wherein the peelable seal, when formed, is hermetic.

20 46. The reclosable bag of claim 41 wherein said web material of said reclosable bag is substantially comprised of a sheet of a parent film material having predetermined dimensions.

25 47. The parent film material of claim 46 wherein the tear areas are integral to said parent film.

48. The reclosable bag of claim 41 wherein said
30 tear areas extend linearly across a predetermined dimension of said sheet of web material.

49. The reclosable bag of claim 48 wherein the

predetermined dimension is width.

50. The reclosable bag of claim 48 wherein the predetermined dimension is length.

5

51. The reclosable bag of claim 41 wherein said tear areas extend nonlinearly across a predetermined dimension of said sheet of said web material.

10

52. The reclosable bag of claim 51 wherein the predetermined dimension is width.

15

53. The reclosable bag of claim 51 wherein the predetermined dimension is length.

20

54. The reclosable bag of claim 41 wherein said tear areas extend across a predetermined dimension of said sheet of web material in a predetermined pattern.

25

55. The reclosable bag of claim 41 wherein said tear areas comprise perforations.

56. The reclosable bag of claim 41 wherein said tear areas comprise scoring.

30

57. The reclosable bag of claim 41 wherein said tear areas comprise microperforations.

58. The reclosable bag of claim 41 wherein said sheet of web material is comprised of a multiple

laminate film.

5 59. The reclosable bag of claim 58 wherein at least one layer of said multiple laminate film material includes said tear areas.

60. The reclosable bag of claim 59 wherein said tear areas are hermetic.

10 61. A reclosable bag for filling with at least one food product, said reclosable bag comprising: at least one sheet of web material having at least one fold structure located between at least two predetermined areas having a propensity to tear in
15 a predetermined direction and presenting at least two sidewall structures having inside surfaces, and an opening located generally opposite said fold structure; a reclosable fastener structure, located in said fold structure, including a skirt structure comprising a web material extending
20 therefrom and including opposed distal margin structures; said web material of said integral skirt structure being sealed to said inside surfaces at a plurality of predetermined sealing areas.
25

62. The reclosable bag of claim 61 further comprising a barrier web material extending between and coupled to said distal margin
30 structures.

63. A method of manufacturing a reclosable bag for

filling with at least one food product, said
reclosable bag comprising: at least one sheet of
web material including a first area of structural
weakness and a second area of structural weakness;
5 said sheet of web material including at least one
fold structure located between and defined by said
first and second areas of structural weakness, and
a fill opening; said sheet of web material
including a first panel coupled to said fold
10 structure adjacent said first area of structural
weakness and a second panel coupled to said fold
structure adjacent said second area of structural
weakness; a reclosable fastener structure
including a male track structure and a female
15 track structure; said male track structure
including a first fin structure of web material
extending therefrom and said female track
structure including a second fin structure of web
material extending therefrom; each said fin
20 structure including a predetermined coupling
portion; said coupling portion of said first fin
structure being coupled to said first panel and
said coupling portion of said second fin structure
being coupled to said second panel; said
25 reclosable fastener structure extending past said
areas of structural weakness and into said fold
structure; said areas of structural weakness being
located below said reclosable fastener structure;
said reclosable bag capable of being filled with
30 at least one food product through said fill
opening, said method comprising:

folding said sheet of web material along a

predetermined folding area located between said areas of structural weakness to form said fold structure;

5 inserting said reclosable fastener into said fold structure;

coupling said distal margin of said integral skirt structure to said web material;

10 sealing said web material along at least two predetermined linear areas located generally perpendicular to said fold structure;

filling said reclosable bag with at least one food product through said opening; and sealing said opening.

15 64. The method of claim 63 wherein the step of sealing said web material along at least two predetermined linear areas occurs last.

20 65. The method of claim 63 wherein the first step is coupling at least one predetermined portion of said distal margin of said integral skirt structure to at least one predetermined portion of said web material prior to folding said sheet of web material.

25 66. The method of claim 63 including the further step of inserting and sealing a header material into said predetermined fold area at least prior to the step of sealing said web material along at least said two predetermined linear areas.

30

67. The method of claim 63 including the further

step of inserting and sealing at least one tear structure into said predetermined fold area at least prior to the step of sealing said web material along at least said two predetermined linear areas.

5

68. The method of claim 63 including the further step of sealing a predetermined portion of said fold structure and forming a header structure; said further step being subsequent to said step of folding said sheet of web material along a predetermined folding area located between said areas of structural weakness to form said fold structure.

10

15

69. A method of manufacturing a reclosable bag for filling with at least one food product, said reclosable bag including at least one sheet of web material having at least one predetermined tear area, at least one fold structure, and an opening located generally opposite said fold structure; a reclosable fastener assembly including at least one integral skirt structure of skirt web material extending therefrom; said integral skirt structure including at least one distal margin; said distal margin being coupled to said web material at, at least one location between said tear area and said opening; said reclosable fastener structure extending past said tear area and into said fold structure; said reclosable bag capable of being filled with at least one food product, said method comprising: folding said sheet of web material

20

25

30

5 along a predetermined folding area to produce said
fold structure; inserting said reclosable fastener
assembly into said fold structure; coupling said
distal margin of said integral skirt structure to
said web material; sealing said web material along
at least two predetermined linear areas located
generally perpendicular to said fold structure;
filling said reclosable bag with at least one
food product through said opening; and sealing
10 said opening.

15 70. The method of claim 69 wherein the step of
sealing said web material along at least two
predetermined linear areas occurs last.

20 71. The method of claim 69 wherein the first step
is coupling at least one predetermined portion of
said distal margin of said integral skirt
structure to at least one predetermined portion of
said web material prior to folding said sheet of
web material.

25 72. The method of claim 69 including the further
step of inserting and sealing a header material
into said predetermined fold area at least prior
to the step of sealing said web material along at
least said two predetermined linear areas.

30 73. The method of claim 69 including the further
step of inserting and sealing at least one tear
structure into said predetermined fold area at
least prior to the step of sealing said web

material along at least said two predetermined linear areas.

- 5 74. The method of claim 69 including the further
step of sealing a predetermined portion of said
fold structure and forming a header structure;
said further step being subsequent to said step of
folding said sheet of web material along a
predetermined folding area located between said
10 areas of structural weakness to form said fold
structure.